Special Issue

Biosynthesis Pathways and Regulation Mechanism of Plants Secondary Metabolites

Message from the Guest Editor

Plants biosynthesize a wide variety of secondary metabolites (SMs). Many of them are involved in relationships between the plant and other organisms and in plant defence against abiotic stress. Plant SMs fill an important role for humans as well. Organoleptic characteristics and health properties of plant-based foods are strongly affected by their SM profile. Moreover, plant SMs are marketed as flavours, fragrances, dyes, fine chemicals, pesticides, and drugs. In recent decades, great efforts have been made to identify new SMs and to elucidate their biosynthetic pathways and regulation mechanisms. This fascinating research field has attracted enormous efforts, with the dual purpose of expanding the knowledge on plant secondary metabolism, and of exploiting this knowledge toward large-scale production of SMs. This Special Issue invites articles that focus on elucidation of SM biosynthetic pathways, identification and characterization of involved genes and enzymes, identification of external factors and cell signaling pathways regulating secondary metabolism, and manipulation of biosynthetic pathways to improve yields of desired SMs or to obtain novel derivatives.

Guest Editor

Dr. Alessio Valletta
Department of Environmental Biology, Sapienza University of Rome, 00185 Rome, Italy

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Plants
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
plants@mdpi.com

mdpi.com/journal/plants

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Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

Editor-in-Chief

Prof. Dr. Dilantha Fernando
Department of Plant Science, University of Manitoba, Winnipeg, MB R3T 2N2, Canada

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